We Claim:

1.   A   method   for   controlling   an
electromechanical valve assembly, said valve assembly
having a first solenoid, a second solenoid and an valve
armature positioned between said first solenoid and said
5   second solenoid, said method comprising:

changing a voltage applied to said first
solenoid from a first polarity to a second polarity;

measuring an induced current in said first
solenoid; and,

10   holding said voltage at said second polarity
for a predetermined time period at a predetermined
amplitude to decrease said induced current, said
predetermined time period or said predetermined
amplitude being determined based on said induced
15   current.

2.   The method of claim 1 further comprising
increasing said first predetermined time period when
said induced current has a positive value.

3.   The method of claim 1 further comprising
20   increasing said predetermined amplitude when said
induced current has a positive value.

4.   The method of claim 1 further comprising
decreasing said first predetermined time period when
said current has a negative value.

25   5.   The method of claim 1 further comprising
decreasing said predetermined amplitude when said
current has a negative value.

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6. The method of claim 1 wherein said first polarity is a positive polarity and said second polarity is a negative polarity.

7. A system for controlling an electromechanical valve assembly, said valve assembly having a first solenoid, a second solenoid and a valve armature positioned between said first solenoid and said second solenoid, said system comprising:

a current sensor for generating a first signal indicative of an induced current level in said first solenoid; and,

a controller operably connected to said current sensor, said controller being configured to change a voltage applied to said first solenoid from a first polarity to a second polarity, said controller being further configured to hold said voltage at said second polarity for a predetermined time period and a predetermined amplitude to decrease said induced current, said predetermined time period or said predetermined amplitude being determined based on said first signal.

8. The system of claim 7. wherein said first predetermined time period is increased when said induced current has a positive value.

9. The system of claim 7 wherein said predetermined amplitude is increased when said induced current has a positive value.

10. The system of claim 7 wherein said first predetermined time period is decreased when said current has a negative value.

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11. The system of claim 7 wherein said predetermined amplitude is decreased when said current has a negative value.

12. The system of claim 7 wherein said first polarity is a positive polarity and said second polarity is a negative polarity.

13. The system of claim 7 wherein said controller generates a release command to change the voltage.

14. An article of manufacture comprising:

a computer storage medium having a computer program encoded therein for controlling an electromechanical valve assembly, said valve assembly having first and second solenoids and an valve armature positioned between said first and second solenoids, said computer storage medium comprising:

code for changing a voltage applied to said first solenoid from a first polarity to a second polarity;

code for measuring an induced current in said first solenoid; and,

code for holding said voltage at said second polarity for a predetermined time period and a predetermined amplitude to decrease said induced current, said predetermined time period or said predetermined amplitude being determined based on said induced current.

15. The article of claim 14 wherein said computer storage medium further comprises code for

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increasing said first predetermined time period when said induced current has a positive value.

16. The article of claim 14 wherein said computer storage medium further comprises code for increasing said predetermined amplitude when said induced current has a positive value.

17. The article of claim 14 wherein said computer storage medium further comprises code for decreasing said first predetermined time period when said current has a negative value.

18. The article of claim 14 wherein said computer storage medium further comprises code for decreasing said predetermined amplitude when said current has a negative value.

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